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07/09/2003

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EXAMINER

HOM, SHICK C

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 07/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/544,738

Applicant(s)

STALLKAMP, RICHARD WISSELE

Examiner

Shick C Hom

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2000 and 06 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2666

DETAILED ACTION

Claim Objections

1. Claims 4-5 and 11-12 are objected to because of the following informalities: In claims 4, 11 line 2, the words "a timestamp" seem to refer back to "a timestamp" recited in claim 1 line 5 and claim 11 line 7, respectively. If this is true, it is suggested changing "a timestamp" to ---the timestamp---.

Appropriate correction is required.

Drawings

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2666

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371[©] of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1, 4-8, 11-15, 18-21, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Hulyalkar (6,032,261).

Regarding claims 1, 8, 15 and 21:

Hulyalkar disclose method and processor comprising; receiving a first signal defining a reference time domain (see col. 2 lines 25-50 where the distributed common cycle clock corresponds to the first signal); receiving a second signal defining a transport time domain asynchronous to the reference time domain (col. 2 line 51 to col. 3 line 2 where the

Art Unit: 2666

transmission time of the data at the node represents the second signal); and generating an isochronous network packet including a timestamp indicating a point in time measured with respect to the reference time domain and represented as a measure of the transport time domain (col. 4 line 40 to col. 5 line 39 where the cycle clock signal used to timestamp the packet corresponds the reference time domain in the timestamp and the delay due to the bus_time value corresponds to the transport time domain).

Regarding claims 4, 11, 18, 23:

Hulyalkar disclose receiving the second signal comprises receiving at least one isochronous network packet including a timestamp indicating an isochronous network cycle-time (col. 2 lines 25-50 and col. 4 lines 40-51).

Regarding claims 5, 12:

Hulyalkar disclose the isochronous network cycle time is determined by an IEEE 1394 cycle master device (col. 2 line 25 to col. 3 line 29).

Regarding claims 6, 7, 13, 14, 19, 20:

Hulyalkar disclose generating the isochronous network packet includes associating the timestamp with at least one frame of generated and received video data to be transmitted across an isochronous network (col. 3 lines 32-53 which recite the use of

Art Unit: 2666

frame synchronization protocol clearly anticipate associating timestamp with frames and col. 4 line 66 to col. 5 line 30 which recite the MPEG video data clearly anticipate the frame to be video data that are transmitted across the network).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-3, 9-10, 16-17 and 11-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hulyalkar (6,032,261) in view of Kappler et al. (6,064,677).

Hulyalkar discloses the method and processor as described in paragraph 4 of this office action. Further, regarding claims 3, 10, 17:

Art Unit: 2666

Hulyalkar disclose receiving the first signal comprises receiving a house reference signal (see abstract, col. 3 lines 32-53 and col. 4 line 66 to col. 5 line 30).

Regarding claims 24 and 25:

Hulyalkar disclose the synchronization logic further comprises logic to associate the generated timestamp with at least one frame of generated and received video data to be transmitted across an isochronous network (col. 3 lines 32-53 and col. 4 line 66 to col. 5 line 30).

Hulyalkar did not teach determining an output signal based at least in part upon the first signal; dynamically sampling the first signal and the second signal to determine a scale factor and an offset factor between the reference and transport time domains; and modifying the output signal by at least one of the scale factor and the offset factor to represent the output signal in terms of the transport time domain as in claims 2, 9, 16, and 22.

Kappler et al. teach that it is known to provide approximations to ordering of packets by timestamps whereby the timestamps represent the virtual finishing time or equivalently the virtual starting time for the packet which are computed by taking a starting time value and adding an offset obtained by

Art Unit: 2666

multiplying the length of the packet by a weight which represents the particular packet sequence's share of the bandwidth as set forth at col. 4 line 65 to col. 5 line 14 in the field of digital and multiplex communications for the purpose of reducing relative data transport unit delay variations in time multiplexed outputs from output queued routing mechanisms as recited in the title and abstract of Kappler et al. clearly anticipate determining an output signal based at least in part upon the first signal; dynamically sampling the first signal and the second signal to determine a scale factor and an offset factor between the reference and transport time domains; and modifying the output signal by at least one of the scale factor and the offset factor to represent the output signal in terms of the transport time domain as in claims 2, 9, 16, and 22.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the step of determining an output signal based at least in part upon the first signal; dynamically sampling the first signal and the second signal to determine a scale factor and an offset factor between the reference and transport time domains; and modifying the output signal by at least one of the scale factor and the offset factor to represent the output signal in terms of the

Art Unit: 2666

transport time domain as taught by Kappler et al. to the system of Hulyalkar because Kappler et al. teach the desirable advantage of in time multiplexed outputs from output queued routing mechanisms, i.e. bounded jitter, and said reducing relative data transport unit delay variations being desirable to achieve more reliable system operation in Hulyalkar.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Acampora et al. disclose a method and apparatus for time base recovery and processing.

Lyles et al. disclose rate shaping in per-flow output queued routing mechanisms for unspecified bit rate service.

8. **Any response to this nonfinal action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

Art. Unit: 2666

(703) 872-9314, (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (2600 Receptionist at (703) 305-4750).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick Hom whose telephone number is (703) 305-4742. The examiner's regular work schedule is Monday to Friday from 8:00 am to 5:30 pm EST and out of office on alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao, can be reached at (703) 308-5463.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Application/Control Number: 09/544,738

Page 10

Art Unit: 2666

Seema S. Rao
SEEMA S. RAO 6/30/03
SUPERVISORY PATENT EXAMINER
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SH

June 30, 2003